

PERVOMAYSKIY, G.S.; VARANOVSKIY, Ya.M.; SHCHERBINA, V.P.

Use of infrared rays in stereoscopic microscopy. Zool. zhur. 44
no.7:1075-1078 '65. (MIRA 18:9)

1. Voenno-meditsinskaya akademiya imeni Kirova, Leningrad.

VARANOVSKIY, Ya.F.; SHULYAYEV, V.G., kand. med. nauk

Infrared ophthalmologic device. Voen.-med. zhurn. no.6:75 '64.

(MIRA 18:5)

VARANOVSKIY, Ya.M.; LEV, I.D.; SHALUMOVICH, V.N.

Use of infrared rays in studying superficial veins in man under normal and pathological conditions. Arkh.anat., gist. i embr. 49 no.10:83-89 0 '65. (MIRA 18:12)

1. Kafedra meditsinskoy fiziki (zav. - dotsent Yu.S.Vayl'), kafedra normal'noy anatomii (zav. - prof. V.N.Murat) i kafedra patologicheskoy anatomii (nachal'nik - chlen-korrespondent AMN SSSR prof. A.N.Chistovich) Voenno-meditsinskoy ordena Lenina akademii imeni Kirova. Submitted April 6, 1965.

VARAPEROV, B. A.

37708 biologicheskiy metod ranney diagnostiki beremennosti.
akjsherstvo i ginek^ologiya, 1949, No. 6, s. 31-33.

So. Letopis' Zhurnal'nykh Statey, Vol. 47, 1949

VARAPETYAN, G.A.; GARIYAN, T.A.; DEMEKHINA, U.A.; MURADYAN, E.G.;
KHUDAVEROYAN, A.G.

Properties of levels and radiations of odd Cs^{131} and Cs^{133}
nuclei. Izv. AN SSSR. Ser. fiz. 28 no.10:1657-1663 O '64.
(MIRA 17:12)
1. Fizicheskiy institut Gosudarstvennogo komiteta po ispol'zovaniyu atomnoy energii SSSR.

L 01498-66 EWT(m)/EWP(1)/T/EWP(t)/EWP(b) JD

ACCESSION NR: AP5014741

UR/0201/65/000/001/0086/0092

AUTHORS: Afanas'yew, M. V.; Lyakhovich, L. S.; Kapel'yan, S. N.;
Varashnin, L. R. 44,55 44,55 44,55

TITLE: Influence of pulsed pressures and temperatures on the diffusion process and mechanical characteristics of the hardened layer in the case of a spark discharge

SOURCE: AN BSSR. Izvestiya. Seriya fiziko-tekhnicheskikh nauk, no. 1, 1965, 86-92

TOPIC TAGS: spark discharge, surface hardening, pressure effect, temperature effect, surface diffusion 44,55, 16

ABSTRACT: The article presents the results of a study of the influence of the interelectrode medium and of pulsed pressures on diffusion processes and on the change in the microhardness of a hardened surface layer in the case of a condensed spark discharge.

Card 1/3

L 01498-66

ACCESSION NR: AP5014741

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The investigations were carried out in air, water, and supersaturated water solution of borax. The pulse pressure was produced by the discharge itself, initiated between iron electrodes (one in the form of a point and the other in the form of a plane) situated in a sealed chamber filled with liquid. The discharge was produced at 2000 volts by a 2000 μ F capacitor bank. The microhardness data were processed statistically. The results showed appreciable differences between the pressure indentations of the hardness measuring machine differ. The high-pressure chamber was described elsewhere (DAN BSSR, no. 2, 1964). The microhardness in air was practically doubled to 200 kg/mm². In the case of a discharge in water with open surface, further increase in microhardness is observed, to 275 kg/mm² for the cathode and 460 kg/mm² for the anode. For a discharge in water contained in the sealed chamber, the microhardness increased to 300 kg/mm². In the borax solution, the corresponding microhardnesses were 340--400 kg/mm² for the open surface, and 500 and 700 kg/mm² for the cathode and anode, respectively, in the

Card 2/3

L 01498-66

ACCESSION NR: AP5014741

sealed chamber. The thickness of the borated layer was 100--150 μ for the open surface of borax solution, and 150--200 μ in the case of the closed chamber. The time during which the metal was in the molten state was estimated from the reaction diffusion formulas to be 530 μ sec. The results obtained are discussed from the point of view of the pulsed pressures, cooling conditions, and alloying. Orig. art. has: 3 figures and 3 formulas.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: MM

NR REF SOV: 007

OTHER: 003

Card 3/3

L 01197-66 EWT(m)/EMA(d)/EMP(t)/ENP(z)/ENP(b) IJP(c) . JD/JG

ACCESSION NR: AP5014742

UR/0201/65/000/001/0093/0098

AUTHORS: Lyakhovich, L. S. Varashnin, L. R.
44,55 44,55 5

33
32
B

TITLE: Influence of nickel, copper, and aluminum on borated medium
carbon steel 44,55 ✓ 27 ✓

SOURCE: AN BSSR. Izvestiya. Seriya fiziko-tekhnicheskikh nauk,
no. 1, 1965, 93-98

TOPIC TAGS: carbon steel, alloy system, surface hardening, boron
steel, nickel containing alloy, copper containing alloy, aluminum
containing alloy

ABSTRACT: The investigations were made on samples 10 mm in dia-
meter and 20 mm long cut from ingots melted in an induction furnace
with acid lining. The investigations were made at 850, 900 and 950C
with soaking at 1 and 3 hours. The results show that the depth of
boration of the layer increases with the increasing temperature and

Card 1/3

L 01497-66

ACCESSION NR: AP5014742

with the increasing soaking time. The alloying elements exerted a noticeable influence on the depth, structure, and properties of the borated layer. The depth being successively greater for nickel, copper, and aluminum, but not at all concentrations. Typical results are shown in Fig. 1 of the Enclosure. Orig. art. has: 5 figures and 3 tables.

ASSOCIATION: None

SUBMITTED: 00

SUB CODE: MM

ENCL: 01

NR REF SOV: 005

OTHER: C00

Card 2/3

L 01497-66

ACCESSION NR: AP5014742

ENCLOSURE: 01

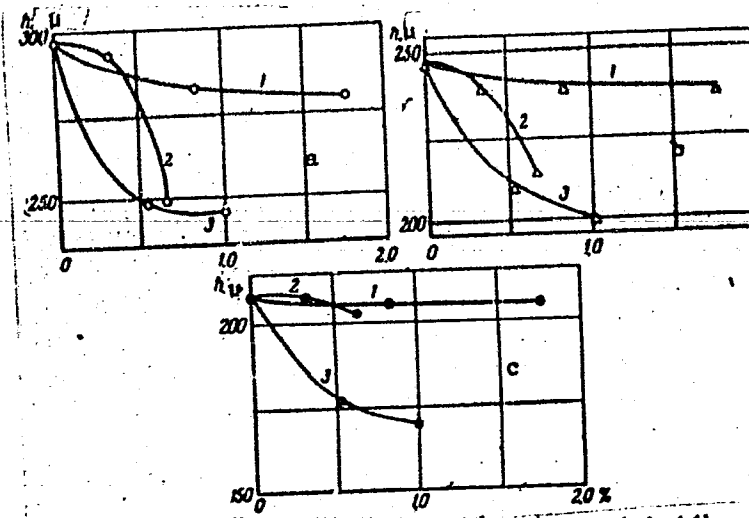


Fig. 1. Effect of nickel (1), copper (2) and aluminum (3) (%) on the depth of the borated layer at 950, 900, and 850°C (a, b, and c, respectively).

Card ^{SP} 3/3 alloying with boron 27

L 22516-66 INT(M)/T/EMP(S) IJP(S) JN/JN

ACC NR AP 6010202

SOURCE CODE: UR/0201/66/000/001/0055/0061

AUTHOR: Lyakhovich, L. S.; Varashnin, L. R.; Dalmanaw, F. V.

ORG: Belorussian Polytechnic Institute (Belorusskiy Politekhicheskiy Institut)

TITLE: The effect of alloying elements on the properties of borated layers

SOURCE: AN BSSR. Vestsi. Seryya fizika-tekhnichnykh navuk, no. 1, 1966, 55-61

TOPIC TAGS: metal diffusion, borate, boride, alloy steel, phase analysis

ABSTRACT: The study deals with the results of the effect of saturation and alloying elements on the depth of the borated layer, its phase compound and properties. It has been established that the process of formation of the borated layer is accompanied not only by the redistribution of carbon (between the boride phases and the parent metal) but alloying elements as well. In the process of saturation, carbide-forming elements diffuse into the transition zone, while nickel, silicon, and manganese -- into the borated phases. While being diffused in the boride and the parent metal, the alloying elements control the relative content of boride phases in the layer. Emphasis is placed upon the effect of alloying elements on borating kinetics and the properties of the borated layers in the process of complex alloying of steel. The chemical composition of the steels tested as well as the other results of tests are given in tabular form. The authors offer recommendations on the selection of steels for borating. Orig. art. has: 4 figures and 3 tables. [Based on author's abstract]

SUB CODE: 11/ SUM DATE: 20Nov65/ ORIG REF: 003 Diffusion' Boron' [AM]

Card 1/1

VARASOVA, N. N.

21877 VARASOVA, N. N. Vliyaniye soley zheleza na urozhay sakharney
ovokly i tomatov. Trudy Krasnodarsk. in-ta pishch. prom-sti,
vyp 7, 1949, s. 79-82. - Bibliogr: 10 nazv.

SO: Letopis' Zhurnal'nykh Statey, No. 29, Moskva, 1949

VARASOVA, N.N.

Characteristics of European ash seeds from various geographical
sources. Trudy Bot.inst.Ser.4 no.11:370-387 '56. (MIRA 9:9)
(Ash (Tree)) (Seeds) (Germination)

VARASOVA, N.N.; KVITKO, K.V.

Composition and amount of pigments in a series of mutants of
Chlorella vulgaris. Vest. LGU 17 no.15:119-124 '62. (MIRA 15:8)
(Algae) (Pigments)

ZABOROVSKIY, Ye.P.; VARASOVA, N.N.

Germination of the seeds of cranberry and wayfaring trees.
Bot. zhur. 46 no.8:1169-1171 Ag '61. (MIRA 15:1)

(Cranberry tree)
(Wayfaring tree)
(Germination)

VARASOVA, N.N.; VASIL'YEVA, V.Ye.; PINEVICH, V.V.

Photosynthetically active pigments in protozoal algae and the
effect of cultivation conditions on them. Vest. LNU 20 no.15:
97-104 '65. (MIRA 18:9)

VARATH G.
GRUBICH, V.; VARATH, G.

Sweat secretion, elimination and exercise. Orv. hetil. 94 no.22:604-
607 31 May 1953. (CIML 25:1)

1. Doctors. 2. Research Laboratory (Head Physician -- Dr. Vilmos
Grubich), National Institute of Physical Training and Sports Hygiene
(Director - Head Physician -- Dr. Sandor Balassa).

VARAUS, Vladislav

On extensive resections of the small intestine. Rozhl. chir. 41 no.2:
80-86 F '62.

1. Chirurgické oddelení krajské nemocnice v Českých Budějovicích,
prednosta doc. dr. Jiri Sejkar.

(INTESTINE SMALL surg)

VARAVA, G.N. (Kherson)

Filling of canals with Krugliakov's cement. Probl.stom. (MIRA 16:3)
6:186-188 '62.

(MATERIA MEDICA, DENTAL)

KRASOVSKIY, Yu.P., gornyy inzh.; VARAVA, I.P., gornyy inzh.; GLADUN, G.A.,
gornyy inzh.; TKACHENKO, A.P., gornyy inzh.; SHUTAN'KO, V.I.,
gornyy inzh.

Using various types of transportation in Krivoy Rog Basin mines.
Ugol' Ukr. 7 no.11:38-39 N '63. (MIRA 17:4)

ZAPARA, S.A., kand. tekhn. nauk; PANOV, V.A.; VARAVA, I.P.

Optimal standard dimensions of excavators and dump trucks
for Krivoy Rog Basin strip mines. Met. i gornorud. prom.
no.1:59-61 Ja-F '64. (MIRA 17:10)

VARAVA, K.N.

On the water system of Paleozoic deposits in the western part of
the Pripet Polesye of the Ukrainian S.S.R. Dop. UN URSS no.4:384-
387 '56. (MIRA 9:12)

1. Institut geologichnikh nauk Akademii nauk URSS. Predstavleno
akademikom Akademii nauk USSR V.G.Bondarchukom.
(Polesye—Hydrology)

VARAVA, K.H. [Varava, K.M.]

New data on the flooding of pre-Cambrian crystalline rocks in
Polesye. Geol.zhur. 18 no.4:105-111 '58. (MIRA 12:1)
(Polesye--Water, Underground)

VARAVA, Konstantin Nikolayevich [Varava, K.M.]; BABINETS, A.Ye. [Babinets', A.IE.], kand.geologo-miner.nauk, otv.red.; OVCHAROVA, Z.G. [Ovcharova, Z.H.], red.izd-va; MATVIYCHUK, O.O., tekhn.red.

[Underground waters of the Ukrainian Polesye] Pidzemni vody ukrains'koho Polissia. Kyiv. Vyd-vo Akad.nauk URSR, 1959. 124 p. (MIRA 12:11)

(Polesye--Water, Underground)

~~VARAVA, K.N. [Varava, K.M.]~~

Scientific and technical conference on prospects for the
development of productive forces of the Kiev Economic Administration
Region. Geol. zhur. 19 no.3:105-106 '59. (MIRA 12:10)
(Kiev Economic Region--Geology, Economic)

BABINETS, A.Ye., otv. red.; VARAVA, K.N., red.; MESYATS, I.A., red.;
POPOV, V.S., red.; RUDENKO, F.A., red.; ULASOVICH, N.M., red.;
FALOVSKIY, A.A., red.; TSAPENKO, I.I., red.; MEL'NIK, A.F.,
red.; LISOVITS, A.M., tekhn. red.

[Transactions of the First Ukrainian Hydrogeological Conference]
Trudy Ukrainskogo gidrogeologicheskogo soveshchaniia, 1st.
Kiev, Izd-vo Akad. nauk USSR. Vol.1. [Hydrogeology] Voprosy
gidrogeologii. 1961. 463 p. (MIRA 15:5)

1. Ukrainskoye gidrogeologicheskoye soveshchaniye. 1st.
2. Institut geologicheskikh nauk Akademii nauk Ukrainakoy SSR
(for Babinets, Varava, Falovskiy, TSapenko). 3. Kiyevskiy gosudarstvennyy universitet im. T.G.Shevchenko (for Rudenko).
(Ukraine--Water, Underground)

KOTEL'NIKOV, I.V.; F NOMAREV, P.U.; GRINBERG, Yu.I.; GALAYEV, I.P.;
TORBA, V.G.; POPOV, N.N.; VARAVA, V.I.

Making ferromanganese with the use of manganese carbonate
ores. Met. i gornorud. prom. no.3:6-9 My-Je '64.

(MIRA 17:10)

KOTEL'NIKOV, I.V.; POPOV, N.N.; VARAVA, V.I.; ANISIMOV, A.T.

Influence of the size and cross-section of a furnace on the technical and economic indices of blast-furnace smelting of ferromanganese. Stal' 25 no.10:880-883 O '65.

(MIRA 18:11)

CHELNOKOV, I.I., dr. tekhn. nauk, prof.; VISHNYAKOV, B.I., kand. tekhn. nauk; VARAVA, V.I., kand. tekhn. nauk; GARBUZOV, V.M., inzh.; SAPRIKIN, L.I., inzh.

Test bench for the vibration dampers of railroad vehicles.
Sbor. trud. LIIZHT no.215:160-170 '64. (MIRA 17.12)

VARAVA, V.N.

VARAVA V.N., pomoshchnik mashinista teplovoza.

High grade maintenance for diesel locomotives. Elek.1 tepl.tiaga
no.10:38-39 0 '57. (MIRA 10:11)

1. Dep. Tashkent-Tovarnyy.
(Diesel locomotives--Maintenance and repair)

VARAVITSKIY, I. B.

PA 248783

USSR/Engineering - Boilers, Auxiliary
Equipment Nov 52

"On Layout and Design of the Devices for Air Pre-
heating With Steam in Boiler Installations," Cands
Tech Sci L. B. Krol', I. B. Varavitskiy

Iz V-S Teplotekh Inst, No 11, pp 29-32

States that utilization of exhaust steam for pre-
heating air before its admission into air preheaters
of boiler plant eliminates major shortcomings of or-
dinary air preheater system with recirculation of
hot air, namely: impossibility of preventing dew

248783

condensation on cold surfaces of heating during
periods of firing, shutdown or lowload operation
of boiler installation. Discusses arrangement and
design of preheater with steam, and economy of fuel
and electric power.

248783

1. KROL', L. B.; VARAVITSKIY, I. D.
 2. USSR (600)
 4. Steam Boilers - Air Preheating
 7. Designing and calculating arrangements for the preheating of air of steam in boiler installations. Izv. VTI, 21, No. 11, 1952
9. Monthly List of Russian Accessions, Library of Congress, ~~February~~ 1953. Unclassified.

VARAVITSKIY, I. B.

Steam Meters

Measurement of high pressure steam consumption by means of welded-in diaphragm.
Elek. sta., 23, no. 2, 1952
Inzh. Kand. Tekhn. Nauk.

SO: Monthly List of Russian Accessions, Library of Congress, April ² 195~~8~~, Uncl.

1. VAPAYITSKIY, I. D., Engs.; IVANOV, Ye. S.; KROCH, I. E.
2. USSR (600)
4. Steam Boilers - Air Preheating
7. Preventing corrosion and the clogging of steam boiler air preheaters with ashes.
Elek. Sta., 23, No. 10, 1952
9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

VARAVITSKIY, I.B., kandidat tekhnicheskikh nauk; KROL', L.B., kandidat tekhnicheskikh nauk; LOKSHIN, V.A., kandidat tekhnicheskikh nauk.

Operation of spraying regulators of superheated, high-pressure steam. Mek.
sta. 24 no.8:3-8 Ag '53.
(MLRA 6:8)
(Steam, Superheated)

VARAVITSKIY, I.B., kandidat tekhnicheskikh nauk; KROL', L.B., kandidat
tekhnicheskikh nauk; KHARKIN, Yu.A., inzhener.

Increasing the efficiency of an electric power plant by preheating air
with steam. Elek.sta. 25 no.3:6-11 Mr '54. (MIRA 7:6)
(Steam boilers--Air preheating)

VARAVITSKIY, I. B.

AID P - 1375

Subject : USSR/Electricity

Card 1/2 Pub. 26 - 2/30

Authors : Varavitskiy, I. B., Krol', L. B., and
Kuznetsov, N. V., Kands of Tech. Sci.

Title : Reduction of temperature of outgoing flue-
gas with the help of an improved design of the
boiler

Periodical : Elek. Sta., 2, 4-8, F 1955

Abstract : The authors consider that at present the
temperature of flue-gases is, as a rule, too
high, and thus does not correspond to existing
technical possibilities. The increase and
improvement of the convection surfaces, and the
use of low-pressure steam-economisers and of
heat-salvaging boilers can, in certain cases,
contribute to the efficiency of power plant
cycles. This applies in particular to plants
burning fuels containing moisture and sulfurous.

Elek. Sta., 2, 4-8, F 1955

AID P - 1375

Card 2/2 Pub. 26 - 2/30

The authors describe and illustrate new heating-surface arrangements which, in combination with heat-salvaging units, contribute to reduce the temperature of exit -gases and to protect exit heating surfaces from corrosion. 3 drawings

Institution: None

Submitted : No date

Subject : USSR/Engineering AID P - 4952

Card 1/1 Pub. 110-a - 1/21

Authors : Rakov, K. A., L. B. Krol', I. B. Varavitskiy, V. M. Biman, Kandidats of Tech. Sci.

Title : Some problems of designing large once-through boilers of super-pressure type.

Periodical : Teploenergetika, 8, 3-10, Ag 1956

Abstract : The authors give recommendations for the design of the above boilers, based on tests with the experimental VTI boiler (up to 300 atmospheres and 600°C), as well as on the joint work of Organenergostroy and VTI Institutes in 1954-1955. The article is illustrated by 7 diagrams of boilers of supercritical pressure.

Institutions: All-Union Heat Engineering Institute (VTI) and All-Union Trust for the Construction of Power Plants (Organenergostroy).

Submitted : No date

VARAVITSKIY, I.B., kandidat tekhnicheskikh nauk; LINDEKVIST, B.A., inzhener;
LOZOVSKIY, A.T., inzhener; RUVINSKIY, I.M., inzhener.

Operation of a small-size economizer. Elek.sta.27 no.6:5-9 Je '56.
(Boilers) (MIRA 9:9)

Le LUVITSKIY, I.B., kandidat tekhnicheskikh nauk.

Water conditioning for high-pressure steam generators. Energetik
5 no.7:1-4 J1 '57. (S24 10:8)
(Feed-water purification)

VARAVITSKIY, I.B.

AUTHOR: Ostinskiy, A.P.

96-4-21/24

TITLE: A conference on the construction of the tail surfaces of boilers operating on sulphurous fuels. (Soveskhanije po konstrukttsiyam khvostovykh poverkhnostey kotlov, rabotayushchikh na vysokosernistykh toplivakh).

PERIODICAL: Teploenergetika, 1958, No.4, pp.91-92 (USSR).

ABSTRACT: A scientific-technical conference on the development of new types of tail surfaces for boilers working on sulphurous fuels was convened by the Perm Power Directorate and the Regional Division of NTOEP and held in Perm in October, 1957. The conference was attended by representatives of power systems working on sulphurous fuels and also by representatives of the All-Union Thermo-technical Institute, the Eastern Branch of the All-Union Thermo-Technical Institute, the Central Boiler Turbine Institute, ORGRES and the Taganrog Boiler Works. Ten reports were made about investigations of sulphur corrosion, corrosion protection, and the development of new types of tail surfaces for boilers.

Dr. Tech. Sc. N. V. Kuznetsov reported on the work of the All-Union Thermo-Technical Institute on the causes of sulphur corrosion of boiler heating-surfaces. The Chief Engineer of Permenergo, P. F. Kochunov, described

Card 1/3

96-4-21/24

A conference on the construction of the tail surfaces of boilers operating on sulphurous fuels.

successful experience with cast-iron elements and also with enamel protection on steel tubes. The representative of Mosenergo, Engineer Belyanin, also endorsed cast-iron elements. Engineer Mazel' of Bashkirenergo recounted the successful use of chemical additives to reduce corrosion and wear of tubes when burning Bashkirian fuel oil. Engineer V. V. Kazanskiy of Permenergo discussed methods of enamelling water-heater tubes and the resistance to corrosion of different sorts of enamel.

R. A. Petrosyan of the All-Union Thermo-Technical Institute described the reconstruction of the tail part of a boiler in the Zakamsk Heat and Electric Power Station.

Cand.Tech.Sc. I. F. Varavitskiy of the All-Union Thermo-Technical Institute reported a new arrangement of tail heating surfaces with gas evaporators and steam heating of water adopted at the Kizelovsk regional electric power station.

Dr. Tech.Sc. N. V. Kuznetsov of the All-Union Thermo-Technical Institute, Engineer Lindkvist of Sverdlovennergo and Engineer Lakhman spoke on the theory, design and

Card 2/3 operation of small coiled heating surfaces, which have

96-4-21/24

A conference on the construction of the tail surfaces of boilers operating on sulphurous fuels.

been widely used in power stations in the Urals. Engineer Pitertsev of the Eastern Branch of the All-Union Thermo-Technical Institute reported on investigations of the best temperature conditions for flue gases and feed water. Participants in discussions included Engineers Demidov of Uralemergo and Fel'shtinskaya of Sverdlovenergo. The Conference recommended that boilers burning solid sulphurous fuels should have cast-iron air heaters. Mention was made of successful experience of the use of enamel and of additives to fuel oil. Future plans for the introduction and testing of new types of air-heaters were noted. The Conference directed the attention of the technical directorate of the Ministry of Power Stations and the All-Union Thermo-Technical Institute to the need for making combined investigations to prevent corrosion of boiler heating-surfaces and ash-removal equipment.

AVAILABLE: Library of Congress.

Card 3/3

VII NOV 1959

SOV/96-59-3-11/21

AUTHORS: Varavitskiy, I.F., Candidate of Technical Sciences;
Kostrikin, Yu.M., Candidate of Technical Sciences;
Galkina, L.G., Engineer and
Savinovskiy, D.A., Engineer

TITLE: The Preparation of Distillate in an Installation with
Direct-Flow Gas Evaporator (Prigotovleniye distillyata
v ustanovke s pryamotokhnym gazovym isparitelem)

PERIODICAL: Teploenergetika, 1959, Nr 3, pp 49-54 (USSR)

ABSTRACT: By the use of gas evaporators it is possible to obtain
distillate in an amount up to 8-10% of the steam raising
capacity of the boiler. In addition, the flue gas
temperature is reduced, the size of the convective parts
of the furnace is smaller and corrosion of the heating
surfaces is reduced. Gas evaporators can operate either
on a direct-flow circuit or with natural circulation.
All the equipment used in the gas evaporators is proved
and reliable. In October, 1954 a gas evaporator was
added to a boiler of 160-200 tons/hour output. A small
heat-exchanger coil was installed at the end of the
existing convective part of the furnace beyond the air

Card 1/4

SOV/96-59-3-11/21

The Preparation of Distillate in an Installation with Direct-Flow Gas Evaporator

heater. It was intended to operate during the winter period as an economiser and during the summer period as a gas evaporator. A general schematic diagram of the equipment is given in Fig.1 and a sketch of the horizontal separator in Fig.2. Since the gas evaporator operates at low pressure, steam is only contaminated by dropwise carry-over of salts. An expression is given for the ratio of the quantity of salt in the distillate to that at the inlet to the separators. In conducting the tests, in order to accelerate and simplify the analyses of water salt content, solutions of phosphates and chlorides were specially added to the water reaching the evaporator. The results of 16 tests are given in Table 1. The thermal efficiency and general characteristics of the gas evaporator were determined from long-term operating experience. The main conditions for producing distillate of the necessary quality during the tests are given in Fig.3. It appears that at humidities of up to 45%, almost all of the moisture reaching the separator is removed. At higher humidities the efficiency of removal

Card 2/4

SOV/96-59-3-11/21

The Preparation of Distillate in an Installation with Direct-Flow Gas Evaporator

is less and a single separator does not suffice. Even the use of two film separators in series, although a considerable improvement, does not give distillate of the required quality. Distillate quality as a function of various operating conditions is plotted in Fig.4 and 5. To study the operation of the separator during possible periods of intermittent salt carry-over, thermo-couples were installed on the coils. Thereby pulsation and the uniformity of distribution of water on the coils were registered. The corresponding test results are given in Fig.6. An outline drawing of the calorifier with multi-stage separation appears in Fig.7 and the main characteristics of the equipment are stated. Operating experience showed a high thermal efficiency; the tubes did not become contaminated or damaged, except occasionally when they were abraded by ash. There were no special difficulties in erection or repair and the installation was particularly reliable in operation. Although in some cases the tubes operated below the dew point, external

Card 3/4

SOV/96-59-3-11/21

The Perparation of Distillate in an Installation with Direct-Flow
Gas Evaporator

corrosion was not observed. After 13,000 hours operation one coil was cut out of the calorifier and no internal deposits were found. On the basis of this operating and test data extensive introduction of gas evaporators is recommended. Their field of application should be determined and design and operating instructions worked out. There are 7 figures, 2 tables and 2 Soviet references.

ASSOCIATION: Vsesoyuznyy teplotekhnicheskiy institut -
Sverdlovenergo (All-Union Thermo-Technical Institute -
Sverdlovenergo)

Card 4/4

SOV/96-59-9-19/22

AUTHORS: ~~Varavitskiy, I.R.~~, (Candidate of Technical Sciences) and
~~Galkina, L.G.~~ (Engineer)

TITLE: Full-scale Tests on a Coil-type Calorifier

PERIODICAL: Teploenergetika, 1959, Nr 9, pp 89-91 (USSR)

ABSTRACT: An article by Varavitskiy and others published in Elektricheskiye Stantsii Nr 3, 1954, described an arrangement of tail-end heating surfaces developed by the All-Union Thermo-Technical Institute. In applying this circuit a small coil-type calorifier was developed and installed in a boiler with a steam output of 160/200 tons per hour in 1955. An outline drawing of the calorifier is given in Fig 1. During the tests the heat-transfer coefficient of the calorifier was determined; the assumptions made and the experimental conditions are described. The coefficients were determined from the experimental data obtained during measurements from the air side. Corresponding measurements were also made from the steam side. The methods of measurement and of working out the experimental data are explained. The heat-transfer test results are plotted in Fig 2 and the test data are tabulated. A relationship is given

Card 1/2

SOV/96-59-9-19/22

Full-scale Tests on a Coil-type Calorifier

Card 2/2 between the Nusselt and Reynolds criteria for this calorifier. It was found that the level of water in the calorifier had little influence on the test results.

There are 2 figures, 1 table and 1 Soviet reference.

ASSOCIATION: Vsesoyuznyy teplotekhnicheskii institut
(All-Union Thermo-Technical Institute)

VARAVITSKIY, I.B., kand.tekhn.nauk; DOROFYEV, I.Ye., inzh.; ZYSKINA, Ye.M.,
inzh.; LAKHMANLOS, A.I., inzh.; LEVTER, I.A., inzh.; TRACHUK, V.P.,
inzh.; TUCHKOVSKIY, P.M., inzh.

Use of a small-sized air preheater in burning Ekibastuz coal.
Elek. sta. 33 no.5:7-12 My '62. (MIRA 15:7)
(Air preheaters) (Furnaces)
(Electric power plants)

VARAVITSKIY, I.D.

0
INA

Fuel Abstracts
June 1954
Steam Raising and
Steam Engines

V 1556. OPERATION OF HIGH PRESSURE STEAM TUBES WITH REGULATORS.
Varavitskiy, I.D., Frolov, L.B., and Loshin, I.A. (Mash. Stn. (for Stn.,
Moscow), Aug. 1953, vol. 24, 3-8). The results of industrial testing of
high pressure horizontal and vertical steam coolers with heat exchange tubes
show that these regulators ensure maintenance of nominal steam temperature
within $\pm 10^\circ\text{C}$ and even $\pm 5^\circ\text{C}$ over a wide load range. The length of the tube
sections in which the steam condensation process occurred was 5 m. Maximum
stress due to temperature change in the case of horizontal tubes was
14 million kcal/m²h and 50 million for vertical tubes.

D.E.A.

2-13 54 IIP

VARAVITSKIY, I.M., kandidat meditsinskikh nauk; YEKHINOVICH, Ye.M.;
LITVINOVA, Ye.S.

Novocillin therapy in syphilis. Vest.ven.i derm. no.1:35-37
Ja-I '54. (MLRA 7:2)

1. Iz Ukrainskogo nauchno-issledovatel'skogo kozhno-venerologicheskogo instituta (direktor - professor A.M.Krichavskiy) i 4-go vendispensera (glavnyy vrach L.Ya.Leshchenko). (Syphilis)

VARAVKA, V.

CHIGVINTSEV, I.; VARAVKA, V.

Excesses in supply and marketing organizations. Fin.SSSR 18
no.2:50-54 P '57. (MLRA 10:5)

(Retail trade)

RADUKIN, Viktor Pavlovich; GOLUBEVA, K.A., inzh., retsenzent; MASLIY, K.Ia., zuborez, retsenzent; ZHUKOV, P.A., kand.ekon.nauk, red.; VARAVKA, V.V., red. vypuska; BELYAKOV, M.N., red.; RCZENBERG, I.A., kand.ekon.nauk, red.; SMIRNITSKIY, Ye.K., kand.ekon.nauk, red.; SUSTAVOV, M.I., inzh., red.; DUGINA, N.A., tekhn.red.

[Labor organization in a workshop] Organizatsiia truda na rabochem meste. Moskva, Mashgiz, 1960. 46 p. (Biblioteka raboche-go mashinostroitelia: Seriya "Osnovy konkretnoi ekonomiki," no.4) (MIRA 14:5)

(Machinery industry--Labor productivity)

1. VARAZASHVILI G.S., ABELISHVILI G.V. Eng., KAZAKOV V.A.
2. USSR (600)
4. Soil Percolation
7. Field method of determining the filtration coefficient of cohesive soils,
Gidr.stroi. 21 no.12, 1952.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, unclass.

VARAZASHVILI, G. S.

Geometric Mine Leveling Using a Photocell
Tr. Gruz. politekhn. in-ta, No 32, pp 85-90, 1954

Geometric leveling in a mine survey is described. A photocell is located in the focus of the telescope eyepiece and a diaphragm with a narrow horizontal slit replacing the horizontal wire of the net. The photocell is coupled to an amplifier and a relay which switches on an electric signal lamp. The light source is a 4-6 volt lamp fixed in the focus of a parabolic reflector behind the diaphragm with a slit 1-1.5 cm wide and fixed to a slider on a suspended rod. The rod is calibrated on a 2mm scale. The instrument was tested in the Georgian Polytechnical Institute (RZhAstr, No 11, 1955)

SO: Sum 812, 6 Feb 1956

CHANTURISHVILI, L.S.; VARAZASHVILI, G.S.

Using electric prospecting to study causes of swamp formation.
Trudy Inst.geofiz. AN Gruz.SSR 13:119-127 '54. (MLRA 9:9)
(Prospecting--Geophysical methods) (Swamps)

Translation from: Referativnyy zhurnal, Geografiya, 1957, Nr 6,
pp 85-86 (USSR) 14-57-6-12316

AUTHOR: Varazashvili, N. G.

TITLE: Basis of a Method for Computing Silting Over Large
Areas (Osnovnyye polozheniya metodiki rascheta kol'ma-
tatsii bol'shikh ploshchadey)

PERIODICAL: Tr. Gruz. nauch. in-ta gidrotekhn. i melior., 1956,
Nr 4 (17), pp 145-155

ABSTRACT: 1) The author proposes a method for determining
silting over large areas and for calculating the
volume of solid silt phase necessary to fill a basin
to a desired elevation. This can be accomplished
graphically (from the curves relating the size of
areas delineated by the contour lines to the ele-
vations of these lines) and also analytically (in
which case the volume of the soil necessary for
silting--disregarding its compaction--is taken as

Card 1/2

14-57-6-12316

Basis of a Method (Cont.)

being equal to the volume of a cone with its base equal to the area to be silted, and with its altitude equal to the maximum thickness of the planned layer of silt). 2) The author also establishes the conditions for computing the amount of ooze (from the change in water turbidity with time). 3) He further proposes that a planned flow network be established in the silted basins for this purpose he suggests that an experimental low velocity flow plan be arrived at with the help of a three-dimensional model containing viscous liquids. 4) Computation of the amount of ooze may be carried out with the help of the so called "interference curves" of the light. These curves express the relationship between turbidity and time of sedimentation.

Card 2/2

G. D.

SOV/124-58-10-11152

Translation from: Referativnyy zhurnal. Mekhanika, 1958, Nr 10, p 63 (USSR)

AUTHOR: Varazashvili, N. G.

TITLE: Acceleration of the Process of Silt Deposition by Changing the Stream Pattern (Uskoreniye protsessa kol'matatsii putem izmeneniya plana tcheniy)

PERIODICAL: Tr. Gruz. n. -i. in-ta gidrotekhn. i melior., 1957, Nr 18-19, pp 286-292

ABSTRACT: In an example of silt deposit on performed in the years 1929-1936 over an area in the vicinity of the town of Poti by the waters of the Rioni river, an uneven distribution of deposits over the area was noted. In order to attain a more uniform distribution of the suspended particles in relation to the area and depth of the depositions, it is suggested that directing structures of a wicker type be installed in the outfall sections of the feeding channels. Owing to an increase in the velocities of the stream from 0.5 to 0.7 m/sec in the channels formed by these structures, the carrying capacity of the stream is increased. Silt deposition over an area must be accomplished in stages from a downstream location, working in the upstream

Card 1/2

SOV/124-58-10-11152

Acceleration of the Process of Silt Deposition by Changing the Stream Pattern

direction. The effect of the directing structures suggested in the paper under review was studied on a three-dimensional model.

V. V. Fandeyev

Card 2/2

VARAZASHVILI, N.G.

Experimental investigations of discharge structures in river
estuaries. Trudy GruzNIIGiM no.20:231-240 '58. (MIRA 15:5)
(Hydraulic structures)

VARAZASHVILI, N.G.; TREGUBOVA, Yu.G.

Eroding away of the shores of one of the small reservoirs. Trudy
Gruz NIIGiM no.21:203-208 '60. (MIRA 16:1)
(Coast changes) (Reservoirs)

V. VARAZI, D. S.

EXCERPTA MEDICA Sec.3 Vol.11/5 Endocrinology May 57

946. VARAZI B. S. and PAILODZE I. B. Med. Inst., Tbilisi, USSR. *Vliyanie adrenalina i insulina na khimism gladkoi myshechnoi tkani. The effect of adrenaline and insulin on the chemistry of smooth muscle BJULL. EKSPER. BIOL. MED. 1956, 41/2 (50-51) Tables 2
- Under the influence of administered adrenaline the glycogen content of smooth muscle (rabbit uterus) decreased, the carbonic anhydrase activity increased, and the amount of vit. C remained unchanged. Administration of insulin caused some increase in the glycogen content of smooth muscle in rabbit uterus; vit. C content and carbonic anhydrase activity were practically unaltered.

Mityushov - Leningrad

VARAZI, V.S.,; PAYLOZE, I.B.

Effect of adrenalin and insulin on the chemistry of smooth muscle.
Biol. eksp. biol. i med. 41 no.2:50-51 F '56. (MIRA 9:6)

1. Is kafedry meditsinskoy khimii (zav.-prof. V.S. Varazi)
Tbilisskogo meditsinskogo instituta (dir.-prof. I.M. Menteshashvili)
(MUSCLES, effect of drugs on,
epinephrine & insulin, on glycogen & vitamin C in
smooth musc. (Rus))
(EPINEPHRINE, effects,
on musc., smooth, glycogen & vitamin (Rus))
(INSULIN, effects
same)
(GLYCOGEN, metabolism,
musc., smooth, eff. of epinephrine & glycogen (Rus))
(VITAMIN C, metabolism,
same)

The effect of adrenaline and insulin upon the chemistry of

2

Def. at U.
Tbilisi State

Keywords: Metaphors

2019-2020

Магистрант Дипломатической школы

1937. აპრილის 10-11-ს. შავი კლასი უმრავლესად წარმოადგენს ბუნ. სფ. გრ. 1973. 208 ჰა. 250 ტ. მთა მწვერვალზე მდებარე დაბნეულ მასივზე.
1928, 26.4

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Аввакум Иосиф Константи-
нович. Материал анатомического
обоснования распространения туберкуле-
за. Зап. 1926, 264.
Варшавский Василий Соломо-
нович. Мутное зрение и связь с
ушным и задним бугром височ. 1925.
208 с. (Лаборт. общед. матеол.) 250 экз.

1000. 800-900-ը հայտնաբերված
1098. Քառասուն յոթ օրո՞ւմ
դպրոցում էր կարգավորված խմի-
չի մեծ խմորներ ցնկած ճուղի-
ներում 1926, 1912,
1913 թթ.

Здравств Константин Дави-
дович! Металлы вылезли сверху на
широкой выемке.

Защ. 1926, 12.12.
1089. *Schizothorax kishinouye* Temm.
schizothorax sp. *Schizothorax kishinouye*

Забег. 1925, 21.6.
Михаил Иванович Иване-
вич. Материал по изучению занесен-
ной коррозией пробы при плавле. Забег. 1925, 21.6.

733

Doctor Medical Sciences

USSR / Soil Science. Soil Genesis and Geography. J

Abs Jour: Ref Zhur-Biol., No 7, 1958, 29425.

Author : Varbalis, P., Shul'ts, S., Gurskiy, V.

Inst : Not given.

Title : A Change in Several Peat Carbonate Soil Properties on High Yielding Plots. (Izmeneniye nekotorykh svoystv dernovokarbonatnykh pochv na uchastkakh s vysokim urozhayem).

Orig Pub: Pochva i urozhay, Riga, 1957, 6, 83-103.

Abstract: The changes are examined in moisture, waterproof aggregate content and the intensity of nitrification processes in peat carbonate leached cultivated soils, planted with grain crops, sugar beets and perennial grasses. The observations were made on the grounds of the "Skangali" experimental base in Yelgaskiy Rayon in 1952 and 1955.

Card 1/1

14-57-6-12262

Translation from: Referativnyy zhurnal, Geografiya, 1957, Nr 6,
p 79 (USSR)

AUTHOR: Varban, A. K.

TITLE: A Simple Water Meter for Measuring the Amount of Water
Used in Intermittent Irrigation (The Universal Membrane
Water Meter VAG) / (Prosteysheye vodomernoye prispos-
obleniye dlya ucheta raskhoduyemoy vody vo vremennykh
orositel'nykh. (Universal'nyy shchitovoy vodomern "VAG") /

PERIODICAL: Sb. n.-i. rabot. Azovo-Chernomor. s.-kh. in-t, 1956,
Vol 14, pp 161-171

ABSTRACT: Bibliographic entry

Card 1/1

VARBANOVA, A. [Varbanova, A.]; SUPUNOV, V.

(in specific synchronization. Razliany BAN 17 no. 5:515-5:3 '64

1. Submitted by Corresponding Member P. Kalyayev [Kalyayev, P.]

Physiology

BULGARIA

VARBANOVA, A., DONESHEVA, P., KANTCHEV, D., Institute of Physiology,
Bulgarian Academy of Sciences

"Characteristics of the Bioelectrical Activity of the Cervical Vagus
in Chronic Experiments

Sofia, Doklady Bolgarskov Akademii Nauk, Vol 20, No 1, 1967, pp 69-72

Abstract: [English article] Earlier the authors carried out (A. Varbanova, V. Sokolov, Compt. rend. Acad. bulg. Sci., 19, 1966, 73) acute experiments with cats leading off continuous rhythmic background afferent impulses from the cervical vagus. To obtain more information about the character of this type of impulse and eliminate the side effect of narcotics and of agents immobilizing the animals, they prepared three cats with permanently implanted electrodes on n. vagus. Under conditions of no external perturbation and of a quiet animal in isolated chambers, there appear continuous rhythmic impulses being led off from the vagus of not very high amplitude (under 50 μ V, usually 10 to 20 μ V) which have a relatively stable frequency comprising two frequency groups (one of 26-33 cycles/sec and another of 56-66 cycles/sec). Parallel with the monotonous rhythmic impulses of not too high an amplitude and rather stable frequency, there is another set of

1/2

L 02149-67

ACC NR: AP6035990

SOURCE CODE: BU/0011/65/018/003/0279/3282

VARBANOVA, A., SOKOLOV, V., Institute of Physiology, Bulgarian Academy of Sciences

Participation of Interoceptive Impulses in the Formation of the Background Bioelectrical Activity of the Brain

Sofia, Doklady Bolgarskoy Akademii Nauk, Vol 18, No 3, 1965, pp 279-282

TOPIC TAGS: bioelectric phenomenon, brain, neurophysiology, man, cat

Abstract: [English article] There has been a number of investigations which stress the connection existing between the alpha-rhythm (most typical of the rhythmic activity of the human brain) and the rhythm of spindles with sensory stimuli. For instance, repeated flashing with a frequency close to or lower than that of the alpha-waves leads to a higher synchronization of the alpha-rhythm instead of the anticipated reaction of awakening (M. Palestini, A. Davidovich, C. Alcocer-Cuaron, R. Hernandez-Peon, ref. by Hernandez-Peon in Elektroentsefalograficheskoye issledovaniye v. n. d. AN SSSR, M., 1962, 96; W. G. Walter, Handbook of Physiology, 1, 1959, 279). In narcotized cats, slow distention of the stomach causes the appearance of spindles (O. N. Zamyatina, Tr. in-ta fiziol. I. P. Pavlova, VII, 1958, 431). The aim of the present investigation was to explain the part played by continuous interoceptive impulses in the formation of the background brain rhythm in cats. Continuous tests were carried out with implanted electrodes in the specific cortical and subcortical representation of the stomach (nucl. ventr. post. med. et lat.

Card 1/2

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ACC NR: AP6035990

thalami, gyr. sygmoidous ant. et post.), as well as in form. reticularis mesenceph., nucl. ventr. ant. th., hypothal. ventromed., hippoc. and optic cortex. Continuous distention of the stomach of cats with a rubber balloon through Bassow's fistula with a pressure of 10 mm Hg leads to considerable changes in the background bioelectrical activity of the brain. Experimental results and the ensuing discussion show that by their nature and properties the interoceptive impulses are particularly adapted to take an active part in the formation of the background brain rhythm. This paper was presented by Corresponding Member D. Mateyev on 16 November 1964. Orig. art. has: 3 figures and 2 tables. [JPRS]

SUB CODE: 06 / SUBM DATE: 16Nov64 / ORIG REF: 001 / SOV REF: 003
OTH REF: 005

Card 2/2 *feh*

Physiology

BULGARIA

VAREANOVA, A., SOKOLOV, Institute of Physiology, Bulgarian Academy of Sciences

"Changes in the Afferent Vagal Impulsation Under the Influence of Interoceptive Stimuli"

Sofia, Doklady Bolgarskoy Akademii Nauk, Vol 19, No 9, 1966, pp 855-858

Abstract: [English article] The afferent vagal impulses and the changes occurring in it under the influences of mechanoreceptor stimuli originating from the stomach and lungs have been investigated in 35 cats rendered motionless by Tricuan. The afferent activity over n. vagus was picked up by a silver electrode placed on the distal end of the nerve, in the region of the neck. The stomach was stimulated mechanically both by the continuous (10 min) and brief (10 sec) distension of a balloon (introduced through the esophagus), while the lungs were stimulated by the introduction of additional amounts of air by the system of artificial respiration. Recording was done simultaneously by a double-beam oscilloscope and a four-channel electroencephalograph. The oscillograph and electroencephalograph recordings are accompanied by a

1/2

VARBANOVA, A.; SOKOLOV, V.

The participation of interoceptive impulses in the formation of the background bioelectrical activity of the brain. Dokl. Bolg. akad. nauk 18 no.3:279-282 '65

1. Submitted on November 16, 1964.

VARBANOVA, S.

Synthesis of polymethylene-bis-4-styryl quinoline halogenides.
Doklady BAN 16 no. 8: 829-832 '63.

1. Submitted by Corresponding Member B. Kourtev [Kurtev, B.]

VARBANOVA, S.[Vurbanova, S.]; IVANOV, S.

Inhibitory effect of polymethylene-bis-lepidinic dirbromides
on serum cholinesterase activity. Doklady BAN 17 no.7:665-
667 '64.

1. Submitted by Corresponding Member P. Nikolov.

IVANOV, V.; VARBANOVA, S.

On the biological action of polymethylene-bis-lepidinic dibromides.
Doklady BAN 17 no.8:765-767 '64.

1. Submitted by Corresponding Member P. Nikolov.

L 20030-06 EWP(j) RM

ACC NR: AP5028417

SOURCE CODE: BU/0011/65/018/001/0023/0025

AUTHOR: Varbanova, S.

6
E

ORG: Higher Institute of Veterinary Medicine

TITLE: The bis-quaternization of 2- and 4-styrylpyridines¹

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 1, 1965, 23-26

TOPIC TAGS: pyridine, crystal, chemical reaction

ABSTRACT: [English article] The bis-quaternization of lepidine and quinaldine, as well as of 2- and 4-styrylquinolines, were discussed in previous papers (Compt. rend. Acad. bulg. Sci., 16, 1963, No 7, 733; 16, 1963, No 8, 829). It was established there that bis-quaternization with quinaldine and 2-styrylquinoline does not proceed because of the steric hindrance of the reaction center N^+ . The author investigates the analogous reaction of the bis-quaternization of 2- and 4-styrylpyridines. She presents, tabulated, the results of analyses and proposes an appropriate reaction formula. The fact that now the bis-2-methylpyridinic and bis-2-styrylpyridinic salts are obtained in measurable quantities (20-30 p.c.) (while this was not the case earlier during the work with the corresponding bis-quinolic salts) seems to indicate that the absence of a benzene ring bonded with a pyridinic one offers greater possibilities of steric distribution of the different

Card 1/2

L 20830-66

ACC NR: AP5028417

constructive elements of the bis-styrylpyridinic molecule. To identify an α -stilbazolehydroiodide released from the different bis-quaternary salts in the course of syntheses, the same was prepared from α -stilbazole and hydroiodic acid. It represents yellow needlelike crystals which, recrystallized from acetone, have a melting interval of 165-170°. No data on that compound were found in literature. The paper was submitted by B. Kourtov, Corresponding Member, 15 Aug 64. Orig. art. has: 2 tables, 1 figure. [JPRS]

SUB CODE: OC, GC / SUBM DATE: 15Aug64 / ORIG REF: 002 / CTH REF: 004

Card 2/2

vmb

BUIGARIA

VARBANOVA, A., SOKOLOV, V., Institute of Physiology, Bulgarian Academy of Sciences

"The Afferent Background Vagal Impulses"

Sofia, Doklady Bolgarskoy Akademii Nauk, Vol 19, No 1, 1966, pp 73-76

Abstract [English article]: The problem of the spontaneous activity in the sense organs is one of the most interesting and at the same time least investigated ones. To study the problem more closely, the author carried out acute experiments with 35 cats immobilized with tricuran. The different activity passing through n.vagus was led over a silver electrode put on the distal end of one of the nerves in the region of the neck. A platinum electrode was placed for stimulation over the other (intact) n.vagus. Besides that, using a stereotaxic apparatus the authors introduced subcortical electrodes in nuc. ventralis post. lat. ed. med. thalami (specific thalamic representation for the stomach and n. vagus) and in form. reticularis mesenceph. Epidural silver electrodes were also placed in gyr. sygmioideus ant. et post. (cortical representation of the stomach). The leads were bipolar with 2 mm distance between the electrodes. The stomach was stimulated mechanically by the distention of a balloon introduced through the oesophagus. Results, presented in the form of numercus oscillograms indicate that 1) there

1/2

Sofia, Doklady Bolgarskoy Akademii Nauk, Vol 19, No 1, 1966, pp 73-76

exist spontaneous background impulses of low amplitude, are continuous, and consist of uniform rhythmic volleys which slowly and gradually change their amplitude, frequency, and polarity; 2) these background impulses change under the influence of different types of narcosis; and 3) a bilateral dependence has been shown between the background impulses of n. vagus and the synchronized bioelectric activity of certain specific cortical and sub-cortical formations (gyr. sygmoides, specific thalamic nuclei), as well as the non-specific reticular formation of the mesencephalon. The authors assume that the background vagal impulses are caused by the non-medullated C-fibers of the vagus. There are 3 Soviet and 7 Western references. (Manuscript received, 11 Oct 65.)

2/2

- 72 -

29010

S/020/61/140/004/011/023
B106/B110

11.1510

AUTHORS: Varbanskaya, R. A., Shelimov, B. N., and Fok, N. V.

TITLE: Reactions of "hot" methyl radicals in solid phase at low temperatures

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 140, no. 4, 1961, 818-821

TEXT: The authors studied the conditions of stabilization and the conversions of methyl radicals obtained by photolysis of methyl iodide, azomethane, acetone, and acetaldehyde at 77°K. The role of "hot" radicals, i.e., methyl radicals with excess energy, in these processes was clarified. The analysis of gaseous reaction products and data of electron paramagnetic resonance (epr) spectra were used for this study. Transparent solid solutions of the tested compounds in methyl cyclohexane were photolyzed in a quartz vessel cooled by liquid nitrogen. The concentration of solutions was 0.02-0.15 moles/liter, and a ППК-7 (PRK-7) mercury lamp was used as irradiation source. The epr spectra were recorded on an ЭПР-2 (EPR-2) device (Ref. 9: A. G. Semenov, N. N. Bubnov, Pribo'y i tekhn. eksperim. (Devices and technical experiments), No. 1, 92 (1959)).

Card 1/4

29010

S/020/61/140/003/011/023
B106/B110

Reactions of "hot" methyl ...

A EC-5 (BS-5) filter pervious to light of $\lambda > 3100 \text{ \AA}$, and a filter filled with a mixture of Cl_2 and Br_2 and pervious to light of $\lambda < 2900 \text{ \AA}$ were used in some of the experiments. In the photolysis of azomethane in solid phase, one molecule of nitrogen and ethane each were formed per decomposing molecule of azomethane, and, additionally, methane in a ratio of $\text{CH}_4/\text{C}_2\text{H}_6 \sim 0.04$ independent of the intensity of light. Methane was the only gaseous reaction product in the photolysis of methyl iodide. Acetone was not decomposed under the conditions applied, acetaldehyde slightly decomposed to about equal quantities of CO and CH_4 . The fact that the ratio $\text{CH}_4/\text{C}_2\text{H}_6$ found for azomethane decomposition was independent of the intensity of light indicates that ethane is formed by recombination of methyl radicals in the interior of a "cell", and not by recombination of free radicals. The formation of methane in the photolysis of methyl iodide and azomethane at low experimental temperature (77°K) suggests the formation of "hot" methyl radicals in the solid phase. The stability of acetone to photolysis indicates the absence of "hot" radicals. The reason is the large difference between the bond energies of the C-C bond in acetone (77 kcal/mole) and of the C-I bond in methyl

Card 2/4

29010

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B106/B110

Reactions of "hot" methyl ...

iodide (54 kcal/mole). The participation of "hot" methyl radicals in the formation reaction of methane was confirmed by photolysis of azomethane in light of different wavelengths. Increasing light energy ($\lambda < 2800 \text{ \AA} \rightarrow \lambda > 3100 \text{ \AA}$) causes the increase of the ratio $\text{CH}_4/\text{C}_2\text{H}_6$ ($1 \rightarrow 7$). Methyl radicals formed in the photolysis of azomethane in solid phase were found to be capable of the following reactions: (1) recombination in the "cell" immediately after formation (formation of C_2H_6); (2) substitution reactions with molecules of the solvent (formation of CH_4 and R^\cdot , where R^\cdot denotes the radical of the solvent); (3) stabilization with emergence from the "cell" (confirmed by the epr spectrum of CH_3^\cdot radicals). The ratio of the extent of these three reactions depends on the energy of the absorbed light. Increase of this energy results in an increased formation of methyl radicals reacting according to (2) as compared with those reacting according to (1), and in an increase of methyl radicals reacting according to (3) as compared with those reacting according to (2). The formation of "hot" radicals in the photolysis of CH_3I and $\text{CH}_3\text{N}_2\text{CH}_3$ in solid phase has thus been clearly proved. The character of the reaction of these "hot" methyl radicals

Card 3/4

29010

S/020/61/140/004/011/023
B106/B110

Reactions of "hot" methyl ...

with molecules of the medium (methyl cyclohexane) depends on structure and bond energies of the molecules decomposing with formation of methyl radicals, and on the wavelength of the light used for decomposition. This effect is obviously related to differences in the type of excitation of "hot" radicals which are formed in different ways. Finally, the authors thank V. V. Voyevodskiy, Corresponding Member AS USSR, for assisting in the evaluation of results, and N. N. Bubnov for recording the epr spectra. The spectrum of the methyl cyclohexyl radical obtained by irradiation of frozen methyl cyclohexane (77°K) with fast electrons was recorded by I. I. Chkheidze in the experimental plant of the Institut khimicheskoy fiziki AN SSSR (Institute of Chemical Physics AS USSR). There are 4 figures, 1 table, and 10 references: 2 Soviet and 8 non-Soviet. The three most important references to English-language publications read as follows: W. C. Sleppy, J. G. Calvert, J. Am. Chem. Soc., 81, 769 (1959); T. Cole, H. O. Pritchard, N. R. Davidson, H. M. McConnell, Mol. Phys., 1, 408 (1958); W. Gordy, C. G. McCormick, J. Am. Chem. Soc., 78, 3243 (1956).

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

SUBMITTED: March 24, 1961

Card 4/4

VARBANSKAYA, V.

In the Irkutsk school for building masters. Sel'. stroi. 13
no. 9:21- 8 '58.

(MIRA 11:10)

1. Starshiy ekonomist Glavkolkhozstroy, Ministerstva sel'skogo
khozyaystva RSFSR.

(Irkutsk--Building trades--Study and teaching)

VARBANSKAYA, V.

Strengthen ties between schools for master builders and the construction industry. Sel'.stroil. 14 no.6:22-24 Je '59.
(MIRA 12:9)

1. Starshiy ekonomist otдела kadrov i shkol Glavkolkhozstroya Ministerstva sel'skogo khozyaystva RSFSR.
(Building trades--Study and teaching)

VARBANSKIY, A.M.

7

621.397.5 : 535.623

582

A Sequential System of Image Transmission in Natural Colours.—A. M. Varbanski. (*Vestnik Sovetsk. 1955, No. 3, pp. 6-9*) The physiology of colour vision is discussed and a sequential system of colour television adopted at the Moscow Experimental Station for Colour Television is described. The distortion peculiar to this type of transmission is considered, and also the special requirements imposed on film transmission.

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~~VARBANSKIY~~ A.M.

KRIVOSHEYEV, Mark Iosifovich; VARBANSKIY, A.M., otvetstvennyy redaktor;
BORONOVA, A.I., redaktor; ~~SUSHKOVICH, V.I.~~, tekhnicheskiy redaktor

[Measurements used in television] Izmereniia v televizionnom
oborudovanii. Moskva, Gos. izd-vo lit-ry po voprosam svyazi i
radio, 1956. 66 p. (MLRA 10:4)
(Television) (Electronic measurements)

VARBANSKIY A.M.

(p. 2)

107-57-7-35/56

AUTHOR: Ivanitskiy, V.

TITLE: Radio at the Festival (Radio na festivale)

PERIODICAL: Radio, 1957, Nr7, pp31-32 (USSR)

ABSTRACT: Briefly described are public-address systems, radio communication and tv services at the Sixth International Festival of Youth and Students and at the sport contests (July 29 to Aug 10, 1957) organized by the Olympic Committee of the USSR. Officials responsible for communication facilities at the festival were interviewed.

I.A. Shamshin, Chief Engineer of the Moscow City Wire-Broadcast Network, said: We have installed public-address systems in the streets, parks, squares, etc., also on the stages. We also installed the facilities for simultaneous interpretation of speeches into 8 foreign languages. We also use mobile public-address outfits. Most of the equipment was developed, manufactured, and installed by our organization.

The Institute of Radio Reception and Acoustics (IRPA) has developed a new radio system for language-interpretation facilities. A number of small-power superlong-wave transmitters operate on a common loop antenna which surrounds the building. Each member of the meeting selects the channel he needs in his pocket-size receiver which is equipped with a magnetic "antenna". The band used is 40 to 145 kc.

Card 1/3

107-57-7-35/56

Radio at the Festival

Another interpretation outfit was developed by the VEF factory in Riga; wire communication is used.

O.V. Vislener, Chief of the Engineering Dept., Chief Administration of Radio Information, said:

We furnished studio equipment and sound-recording equipment. We use a new "Reporter-2" type portable tape recorder; its circuits including the motor are supplied by dry batteries. We also trained personnel for tone monitoring and other functions. We will be doing transcribing and phonogram copying at the festival. The sum total of the rooms at the "Radio House of the Festival", where foreign guests will work, is 20,000 m³.

A.M. Varbanskiy, Chief Engineer of the Moscow TV Center, Ministry of Communications, said:

We have a few live pickups like that at the Luzhniki Stadium, and five mobile autobus-type pickups; we also brought an h-f cable to 17 theaters for possible pickup connections. A type UZTP-1 outfit, developed by the Science Research Kino-Photo Institute, will record tv programs and will be used for printing films. The films will be distributed over many cities.

Yu. N. Andress, Deputy Chief of the Moscow Directorate of Radio Communication and Radio Broadcasting, said:

Card 2/3

· Radio at the Festival

107-57-7-35/56

Broadcasting will be done from over 70 stations situated at various points of the Capital. From some pickup stations the programs will go in several languages. Some stations are stationary, some mounted on trucks.

AVAILABLE: Library of Congress

Card 3/3

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PHASE I BOOK EXPLOITATION

SOV/1854

Varbanskiy, Aleksandr Mikhaylovich

Televizionnaya tekhnika (Television Engineering) Moscow,
Gosenergoizdat, 1959. 286 p. 25,000 copies printed.

Ed.: M.I. Krivosheyev; Tech. Ed.: K.P. Voronin.

PURPOSE: The book is intended for engineering and technical personnel working with video equipment in television broadcast stations. It may also be used by advanced students of radio engineering departments.

COVERAGE: The author discusses special aspects of engineering amplifier units and systems of modern television broadcast stations. He describes the operation of circuit components used in forming video signals and complete picture signals. He also discusses the operation of power supply for television equipment. The author thanks M.I. Krivosheyev, B.S. Nyrnov, I.I. Sheyfis,

Card 1/ 5

Television Engineering

SOV/1854

and Yu.S. Milevskiy for reviewing the text. There are 29 Soviet references (including 2 translations).

TABLE OF CONTENTS:

Foreword	3
Introduction	7
Ch. 1. Block Diagram of a Video System of a Television Broadcast Station	13
1-1. Construction of the block diagram	13
1-2. Video-signal passage	15
1-3. Distribution of synchronizing pulses	23
1-4. Signaling and communication	33
Ch. 2. Amplification System of a Camera Channel	35
2-1. Block diagram of a camera channel	35
2-2. Camera preamplifier	38
2-3. Compensation for aperture distortions	50
2-4. Intermediate amplifier	59
2-5. Compensation for nonlinear (contrast) distortions	93

Card 2/5

Television Engineering

SOV/1854

2-6. Compensating-signal oscillator	100
Ch. 3. Commutation and Mixing of Video Signals	107
3-1. Purpose and location of the mixer-commutator device in the system	107
3-2. Mixer-commutator devices with no vacuum tubes	108
3-3. Vacuum-tube mixer-commutator devices	112
Ch. 4. Linear Amplifier	122
4-1. Automatic gain control of video signals	122
4-2. Mixing of synchronizing pulses	126
4-3. Clamping	127
4-4. Output stage for an amplifier with cable load	132
4-5. Regeneration of synchronizing pulses	135
Ch. 5. Control Devices	139
5-1. Devices for observing video signals	139
5-2. Oscillographic control devices	142
5-3. Raster method of pulse control	151

Card 3/5

Television Engineering

SOV/1854

Ch. 6. Synchronizing Pulse Generator	154
6-1. Required characteristics of synchronizing pulses	154
6-2. Frequency dividers	159
6-3. Synchronization with an a-c circuit	172
6-4. Forming of pulses	174
6-5. Synchronizing-generator block diagrams	196
6-6. Separation of synchronizing pulses from a complete television signal	210
6-7. Joint operation of synchronizing generators	213
Ch. 7. Transmission of Motion Pictures	221
7-1. Special aspects of the television transmission of motion pictures	221
7-2. Pulse gating for motion-picture transmission	225
7-3. Transmission of motion pictures by the scanning beam method	232
7-4. Method of optical equalizing	236
7-5. Optical image commutation	238
7-6. Control of projector operation	241

Card 4/5